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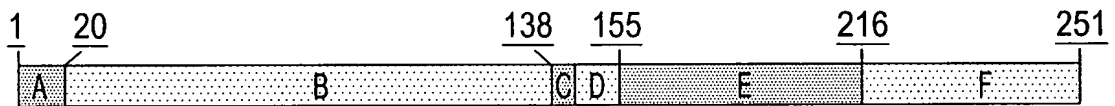
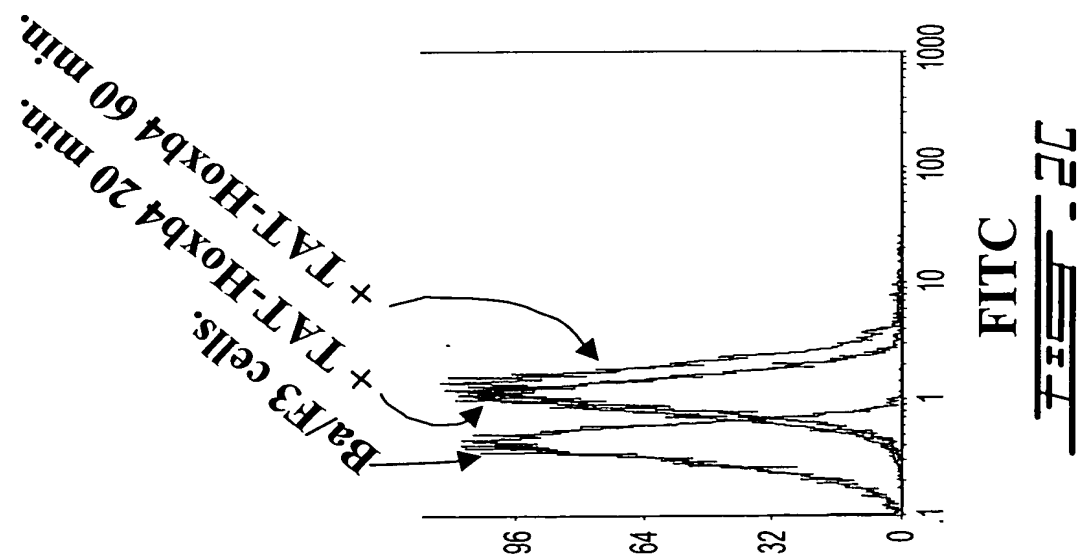
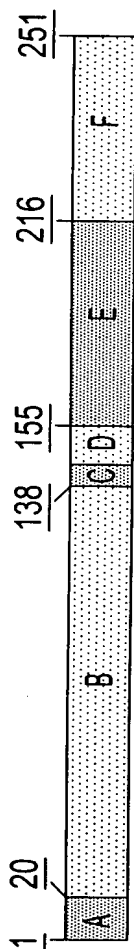


FIG. 1





FEF-4A

Mutant HOXB4 protein (letters refer to HOXB4 domains)	Proliferative effect on Rat-1 cells	Proliferative effect on d12-CFUS (over controls)
A to F (wild-type)	++	↑200 X
C+D+E+F	++	No increase
A+B+C	No effect	No increase
A to F with point mutation in C (Trp>Gly)	No effect	No increase
A to F with point mutation in E (Asn>Ser)	No effect	No increase

FEF-4B

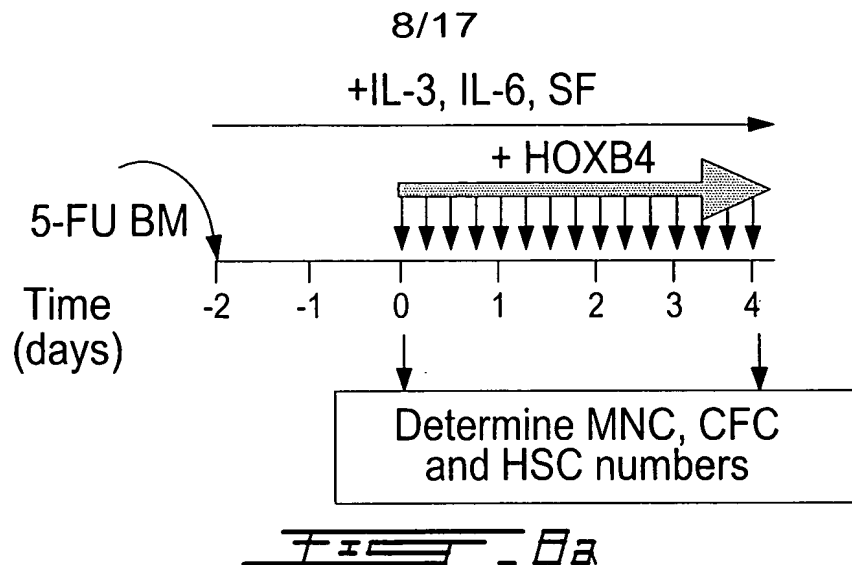
Domain A: Protein sequence

Hoxa4	MTMSSEFLINSNYTEPKFPPEEEYAPHGGPG
Hoxc4	MIMSSYLMDSNMIDPKFPPEEEYSQ
Hoxd4	--MSSYMNNSKMYVDPKFPPEEEYVQ
Hoxb4	MAMSSSEFLINSNYVDPKFPPEEEYSQ
Dfd	MMSSFLMN--VDPKFPPEEEYNQNSY

Conserved Tyrosine (Y) flanked by  
acidic (D-E) amino-acids  
suggesting that it might be a  
substrate for tyrosine kinases

Domain B: Not conserved but contains :

- a long proline stretch (n=15)
- 4 tyrosines
- a potential site for phosphorylation by cAMP protein kinase
- a potential site for phosphorylation by casein kinase II
- a potential site for phosphorylation by PKC



Time (hrs)	0	+3	+6	+9	+12	+15	+18	+24
Fresh media + HOXB4	+	-	-	-	-	-	-	+
HOXB4 addition	-	+	+	+	+	+	+	-
FCS, cytokine adjustment	-	-	-	-	+	-	-	-

Figure 8b

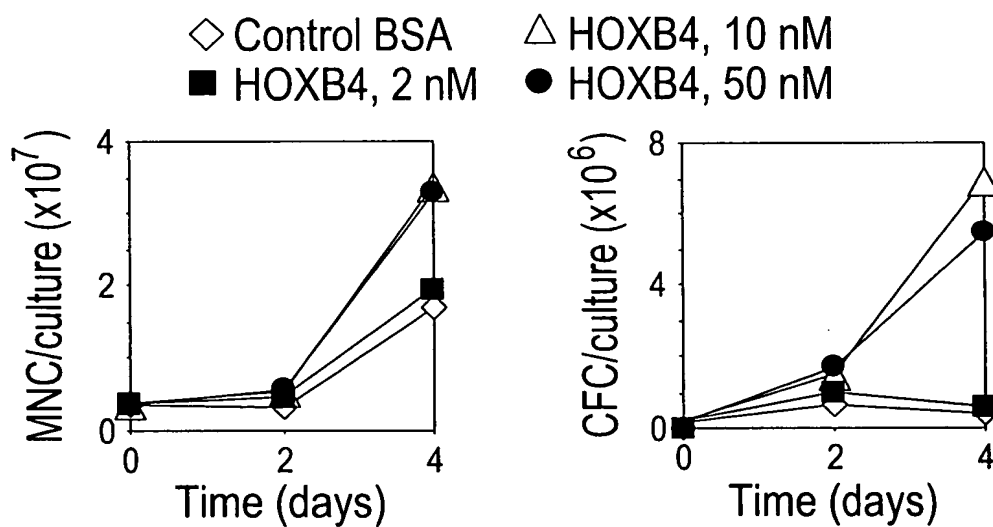
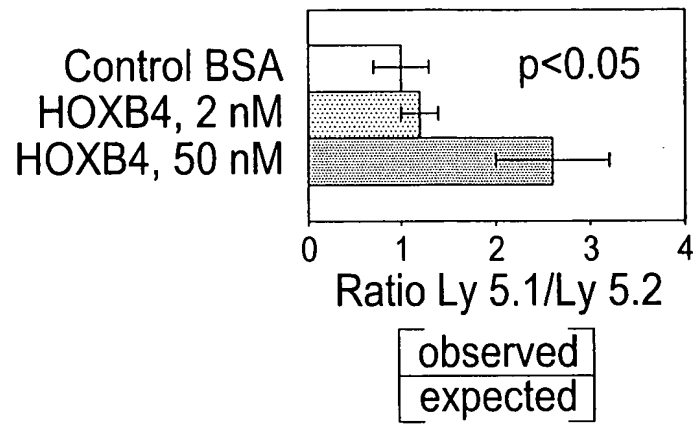
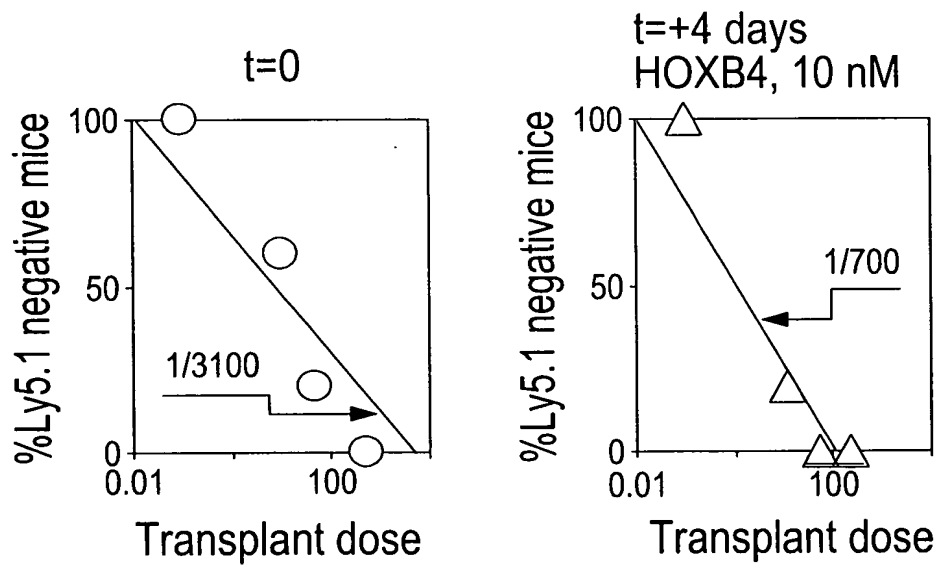


Figure 8c

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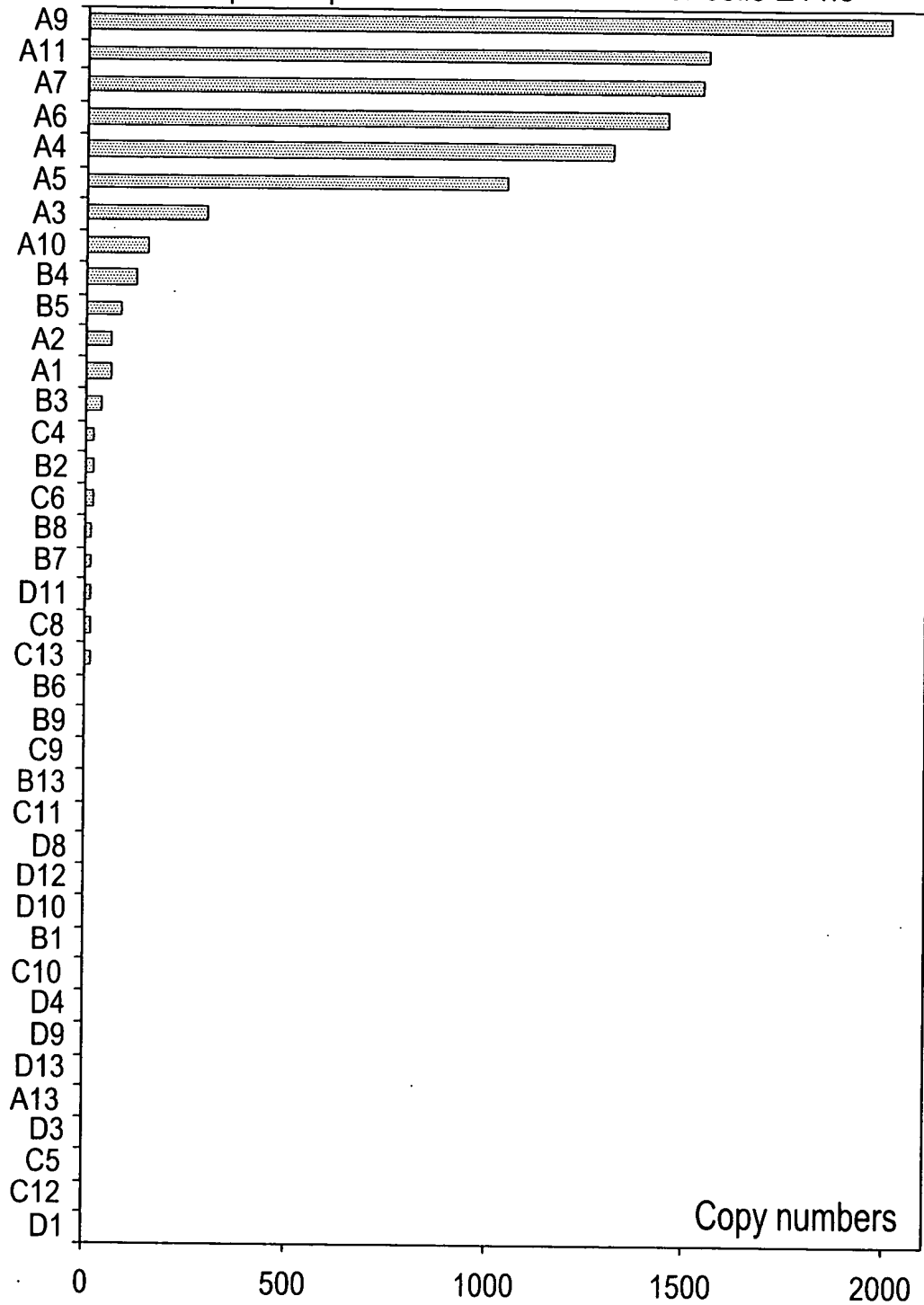
Fi - Ed



Fi - Ed

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# RNA copies expressed in C-kit+ fetal liver cells E14.5



not low    medium    high    Very high

<20 is considered not expressed

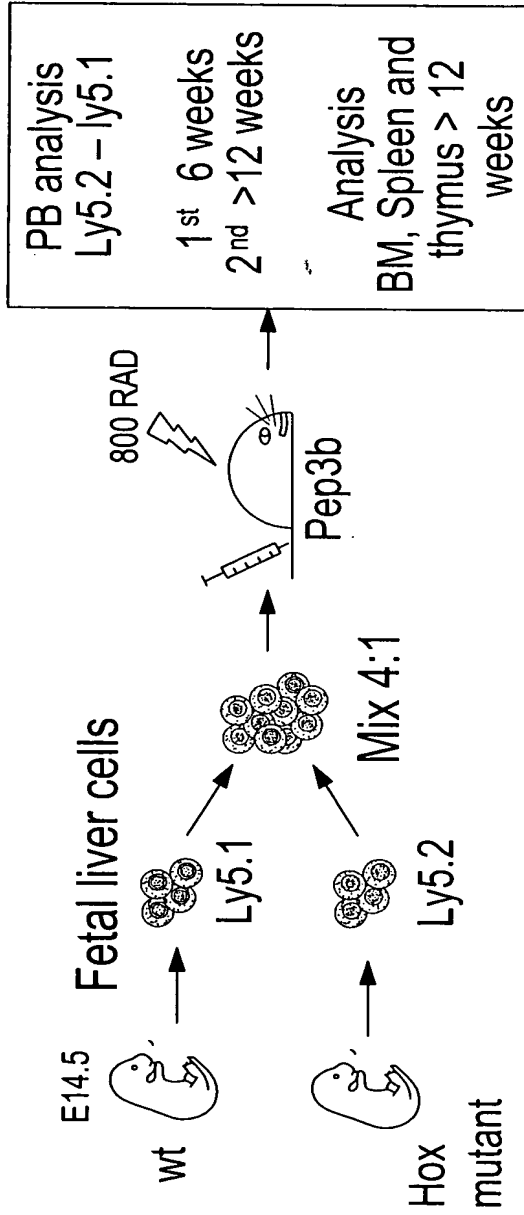


Figure 11A

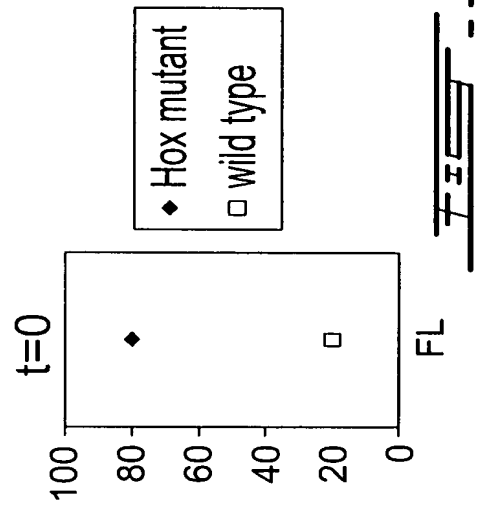
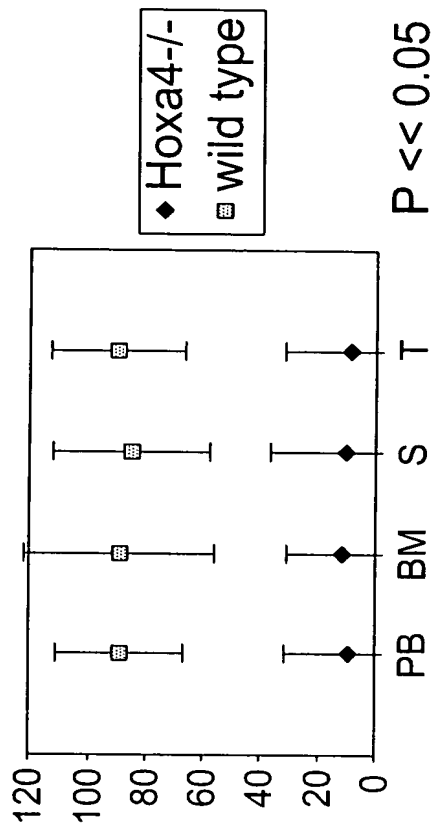
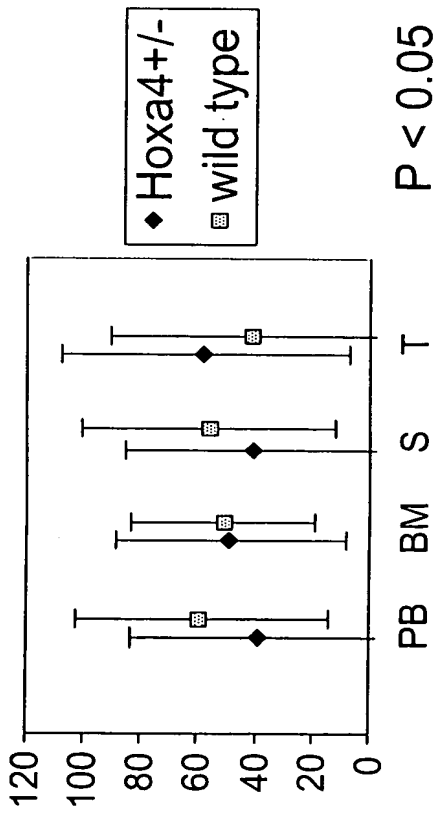


Figure 11B



t>12 weeks



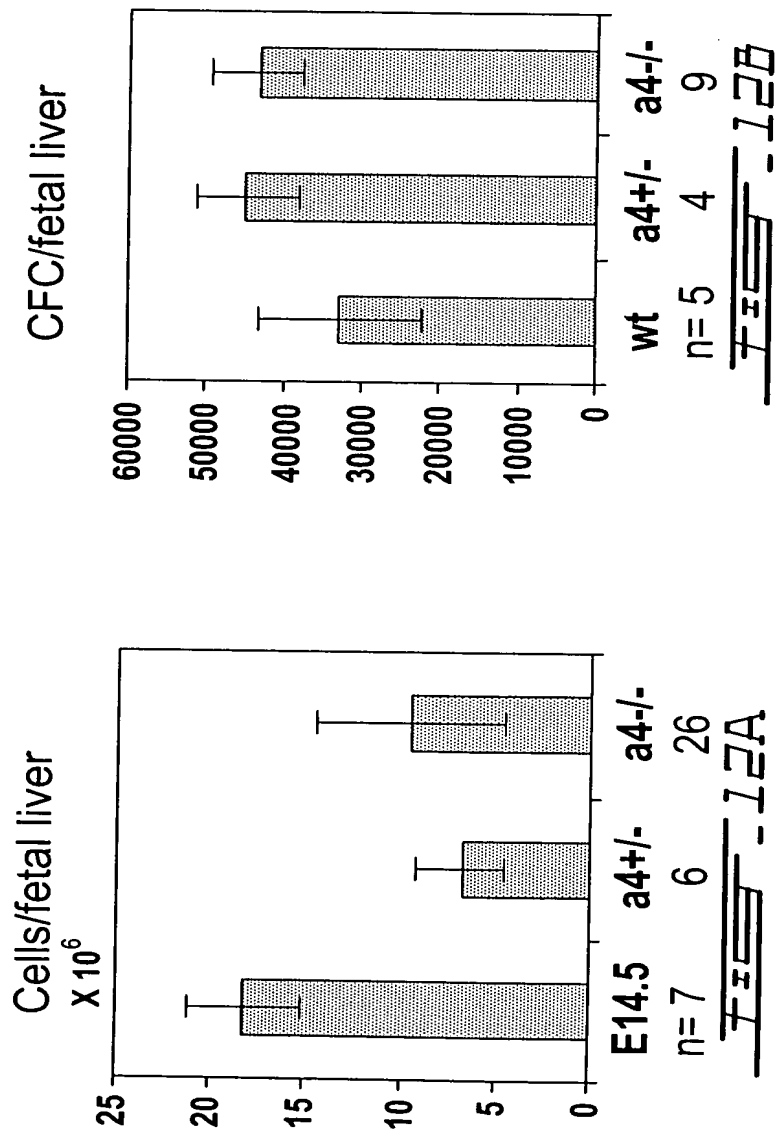


Table 1 Hemopoietic progenitor numbers in E14.5 fetal livers of normal and mutant mice

	% SKL	SKL/FL $\times 10^3$	CFC/1000 SKL cells/colony $\times 10^2$
wt	n=8 0.4 $\pm$ 0.2	43 $\pm$ 15	49 $\pm$ 9 <sup>a</sup> 7 $\pm$ 6
Hoxa4+/-	n=8 0.7 $\pm$ 0.0	54 $\pm$ 11	72 <sup>b</sup> 11
Hoxa4-/-	n=8 0.6 $\pm$ 0.1	36 $\pm$ 12	113 $\pm$ 23 <sup>c</sup> 12 $\pm$ 3

CFC: colony forming cell; SKL: Sca<sup>+</sup>, c-kit<sup>+</sup>, Lineage<sup>-</sup>; FL: fetal liver; : a: n=3; b: n=1; c: n=4

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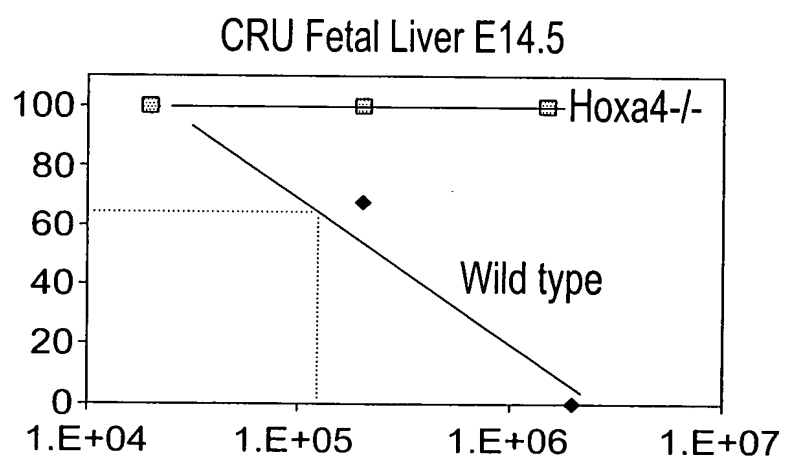
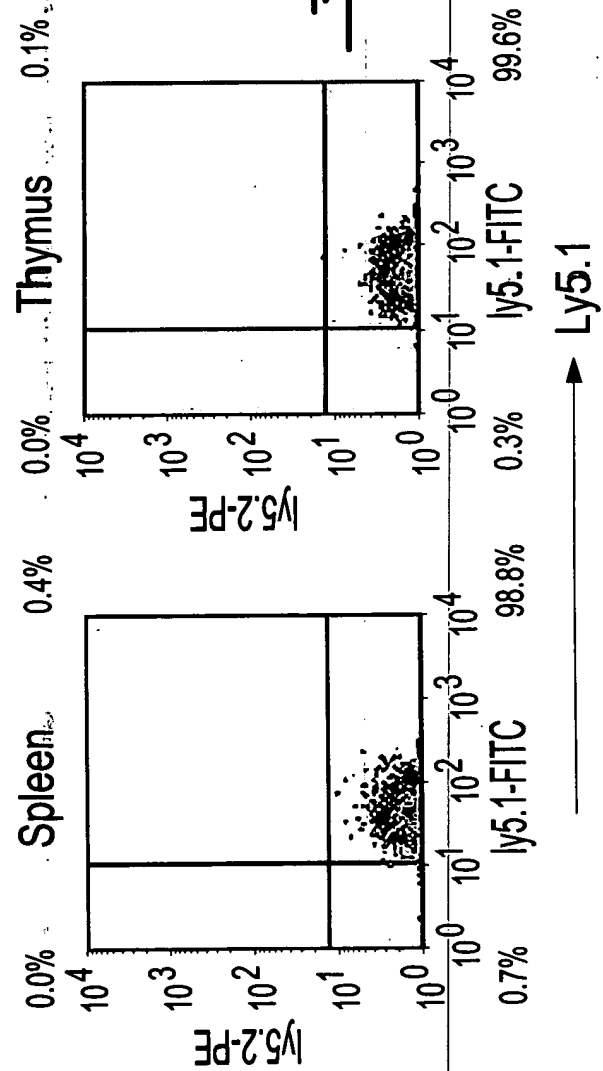
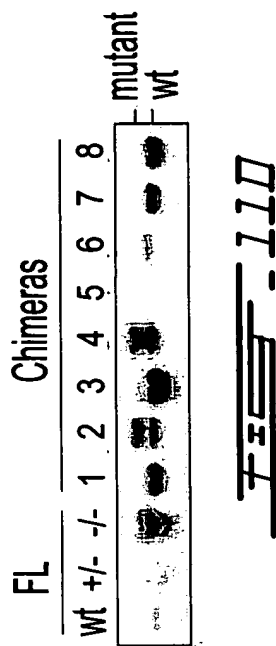
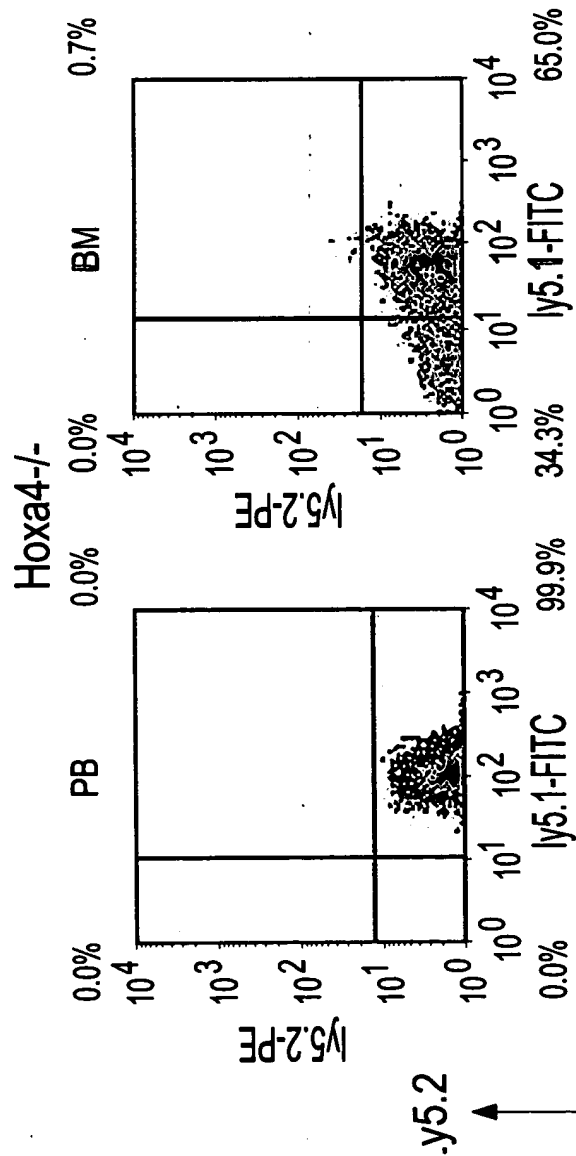


Figure 13C



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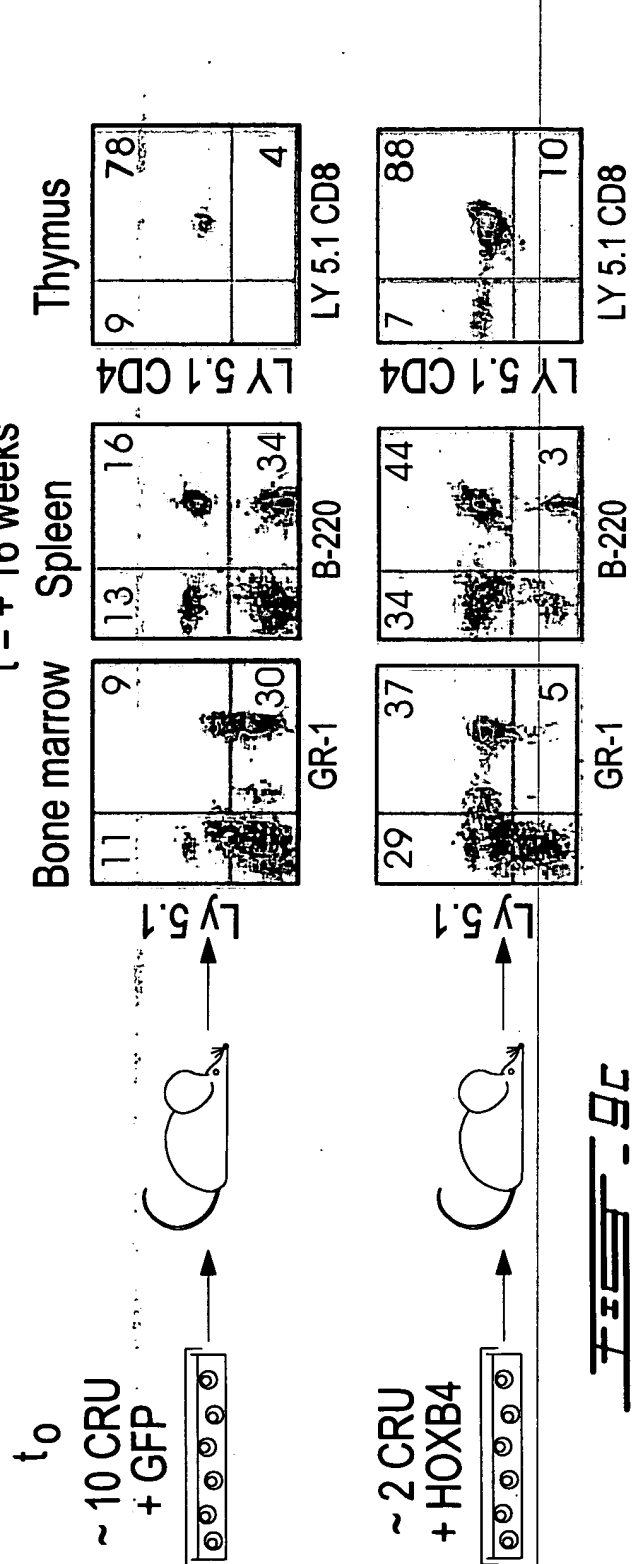
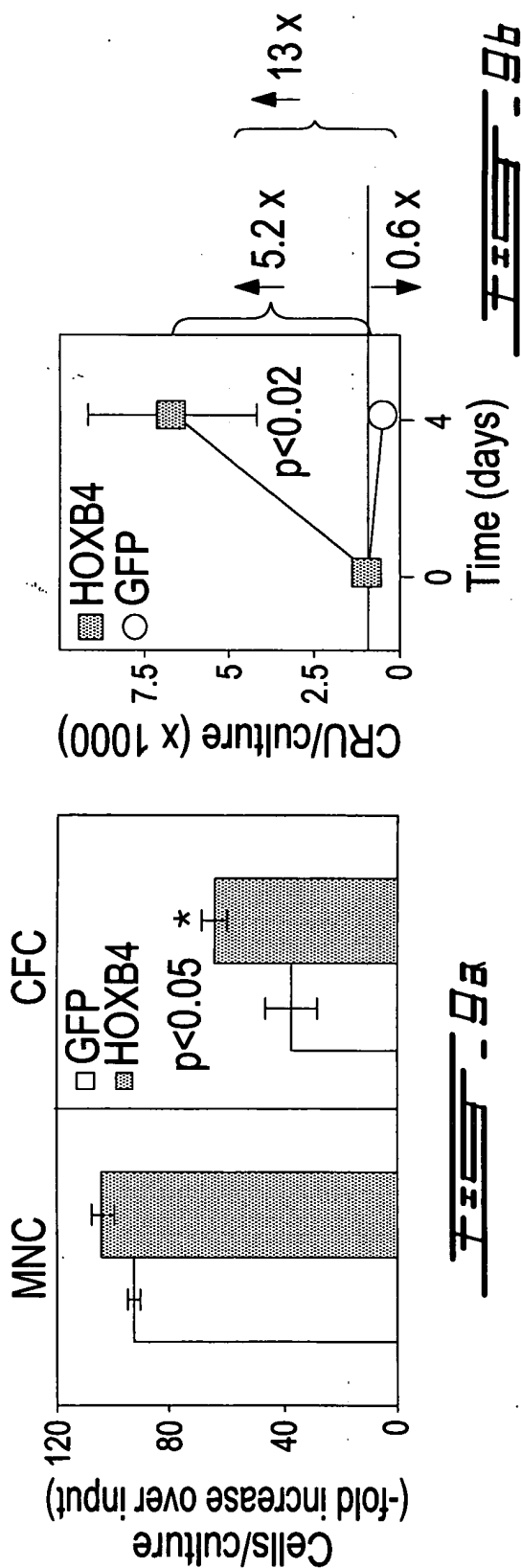
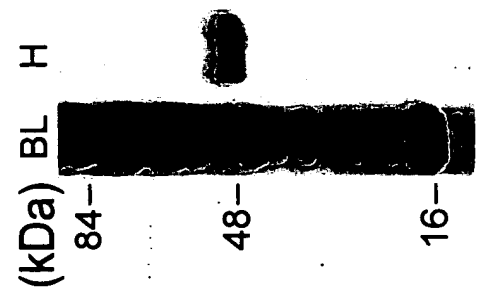
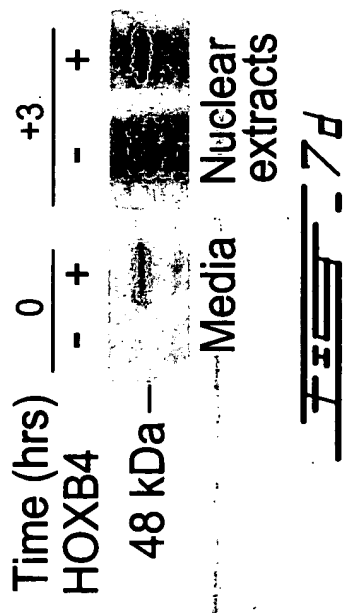
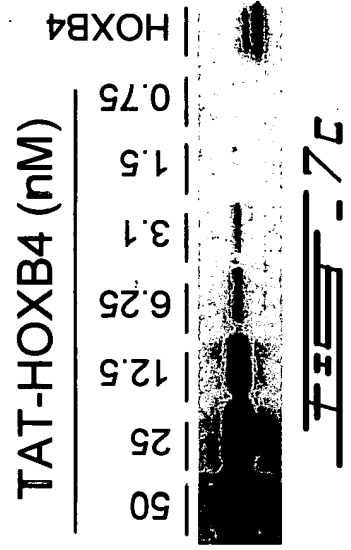
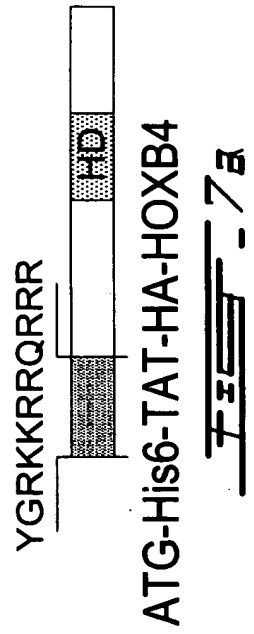


Figure 9c



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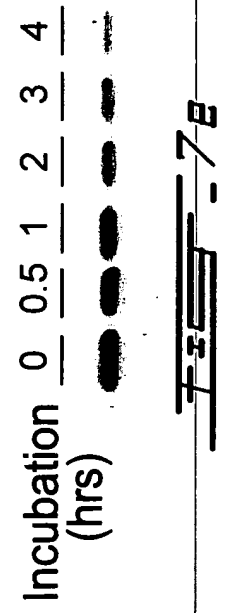
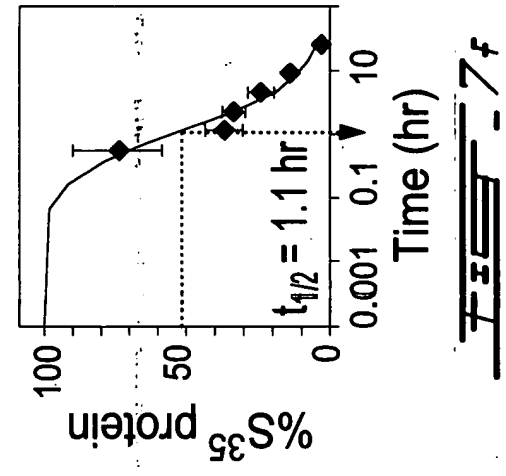


Fig - 7b

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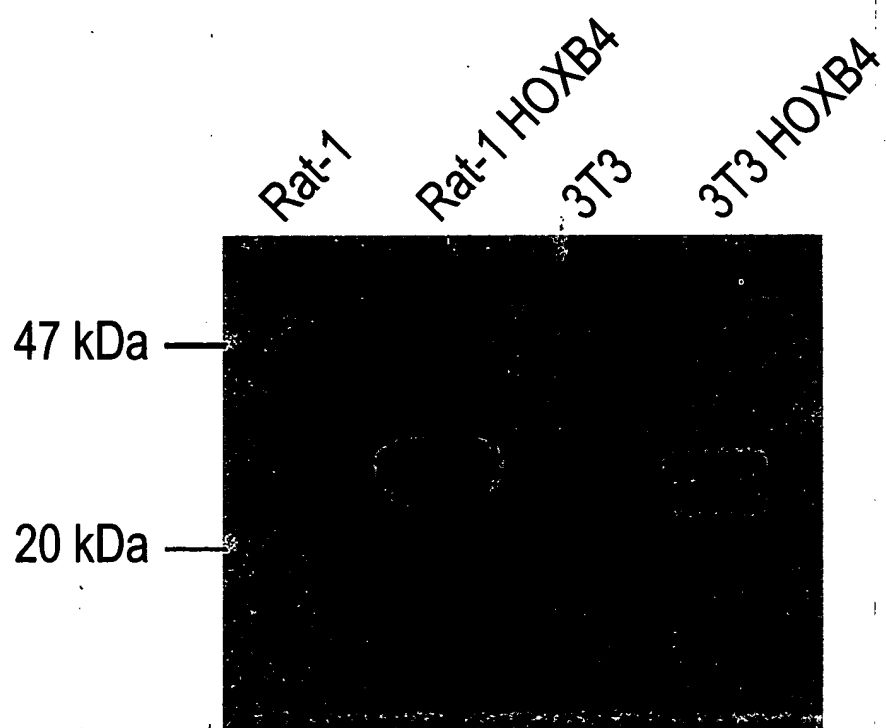
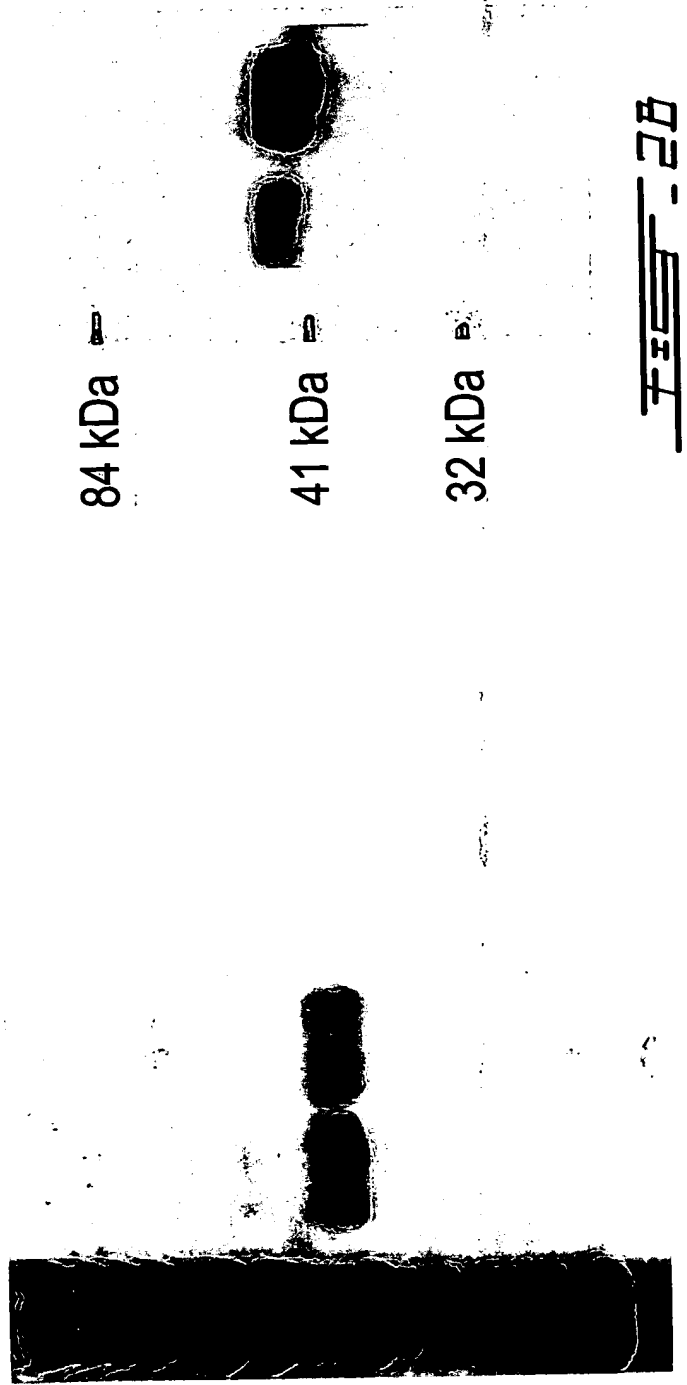


Figure 6

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Competition BM Hoxa4<sup>-/-</sup>

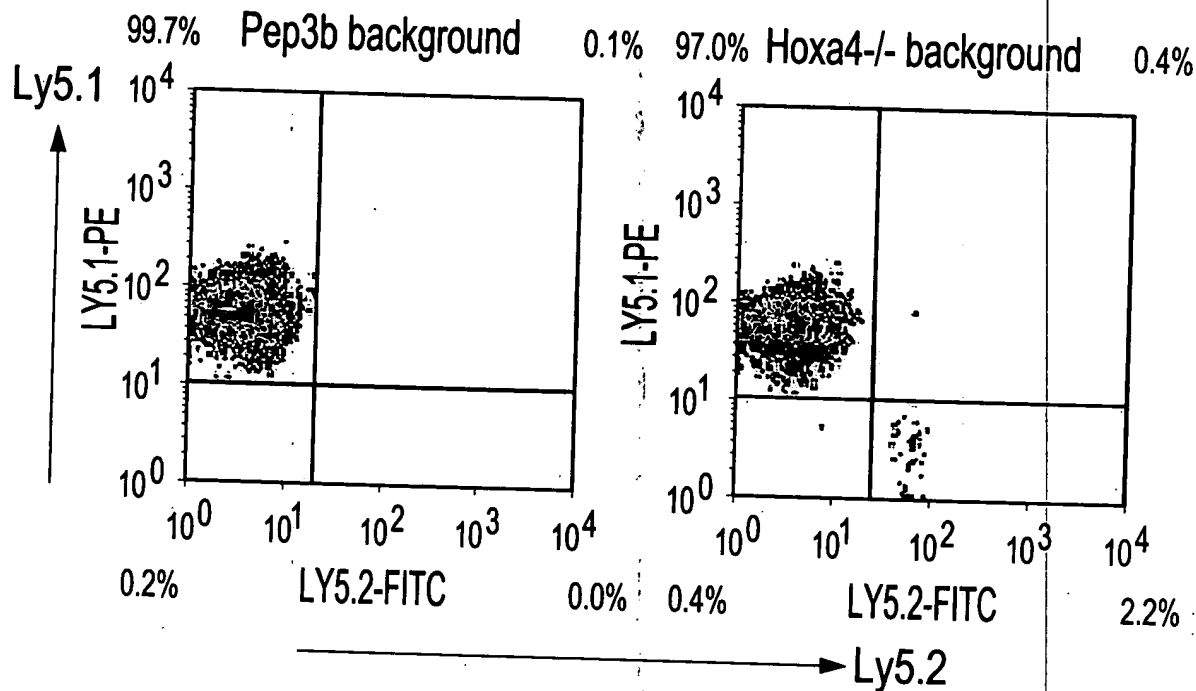


FIGURE 13A

10<sup>7</sup> Pep3b cells transplanted  
into non irradiated recipients

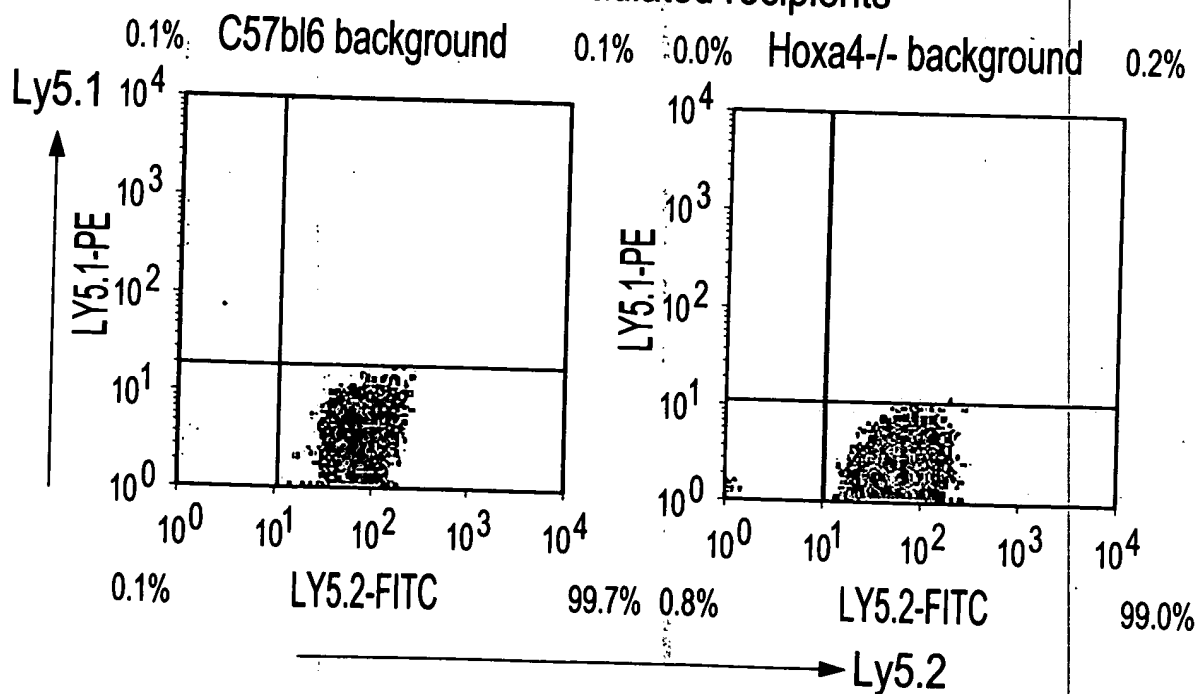


FIGURE 13B